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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,764	09/22/2004	Son Nguyen-Kim	258177US0PCT	7921
22850 7590 07/17/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BARHAM, BETHANY P	
			ART UNIT 1615	PAPER NUMBER
			NOTIFICATION DATE 07/17/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	Application No. 10/508,764	Applicant(s) NGUYEN-KIM ET AL.	
	Examiner Bethany P. Barham	Art Unit 1615	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/22/04, 12/22/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### Summary

Receipt of IDS's filed on 09/22/04 and 12/22/2004 is acknowledged. Claims 1-10 are pending. Claims 1-10 are rejected.

## DOUBLE PATENTING

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-2 and 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 and 8 of U.S. Patent No. 6,524,564 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because both make a hair treatment composition comprising a

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crosslinked polyurethane comprising at least one diisocyanate, at least one compound which contains two active hydrogen atoms per molecule, at least one compound which contains at least two or more active hydrogen atoms and at least one ionogenic and/or ionic group per molecule. Furthermore, in order to determine what was meant by the phrase "at least one compound which contains two active hydrogen atoms per molecule" the examiner had to look to the specification which states that component (c) of '564 has a molecular weight preferably in the range of about 500-3000 and that polytetrahydrofurans are preferred (col. 6, lines 31-40), which reads on the instant claim set and weight range of polytetrahydrofuran.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

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exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2, 4, and 5-6 recites the broad recitation of "molecular weight" or "% by weight" or "at least", and the claim also recites "preferably" or "in particular" which is the narrower statement of the range/limitation.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,992,507 ('507).

The limitations of claims 1-3 and 5 are taught:

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- '507 in Example 20 teaches a polyurethane comprising PTMEG (T-1000), (which is polyTHF 1000 molecular weight, instant component A), trimethylolpropane (instant component B), N-methyl diethanolamine (instant component C) and Isophorone diisocyanate (instant component D).
- Furthermore, the polyurethane of '507 comprises various diisocyanates including hexamethylene and isophorone (col. 2, line 67-col. 3, line 1), diols and triols (col. 3, lines 13-15) preferred dimethylolpropionic acid (col. 6, line 8), polyols specifically, neopenyl glycol, trimethylolpropane, pentaerythritol, etc (col. 4, lines 1-3). Dimethylolpropionic acid, trimethylolpropane, isophorone diisocyanates, and diols are preferred and used in the examples 2, 8 and 19-20 (Also see claims 1, 7, 9-11).

The limitations of claims 7-10 are taught:

- '507 teaches an aqueous dispersion of polyurethane, which is useful as coating compositions (abstract). '507 teaches that polyurethanes are well-known as being useful for coatings and films (col. 1, line 13-15), and furthermore teaches that they may be employed as adhesives, binding agents, and coating compositions to be applied to any substrate, including wood, metals, glass, cloth, leather, paper, plastics, foam and the like, with various ingredients such as emulsifiers, organic solvents, etc added (col. 7, lines 45-66).

Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by 6,524,564 ('564).

The applied reference has a common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The limitations of claims 1-3 and 5 are taught:

- '564 teaches a polyurethane composition (see abstract, claim1): includes triols and triamines, trimethylpropane is taught as a triol (col. 6, lines 15-16 and col. 5, line 13-14, instant B); (b) includes diisocyanates such as hexamethylene diisocyanate, isophorone diisocyanate (col. 6, lines 5-7, instant D); (c) includes molecular weights of 500-3000 of polyetherols such as polytetrahydrofurans (col. 6, lines 31-40, instant A); (d) includes polysiloxanes (col. 7, lines 45-47, instant E); (e) includes diamines or diols such as dimethylolpropanoic acid (col. 10, lines 48-50, instant C).

The limitations of claims 6-10 are taught:

- '564 teaches that the coating compositions for keratinous surfaces (hair, skin and nails) has a solids content from 0.5-20% (col. 24, lines 13-22), and that a propellant is not present in more than 55% (col. 24, lines 52-54). '564 teaches that the preferred hair treatment composition is 0.5-20% polymer of the invention, 30-99.5%, preferably 40-99% solvent, and 0-70% propellant (col. 26, lines 1-10).

- '564 teaches that the silicone-containing polymers according to the invention are useful as auxiliaries in cosmetics and pharmacy, especially as or in coating compositions for keratinous surfaces (hair, skin and nails) and as coating compositions and/or binders for solid drug forms, in addition for coating textile, paper, printing, leather, adhesives (col. 23, lines 54-62).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,992,507 ('507) in view of US 6,566,438 B1 ('438).

The limitations of claims 1, 4 and 6 are taught:

- '507 in Example 20 is taught above and teaches a polyurethane comprising (of solids) 38.7% PTMEG (T-1000) (instant component A), 1% trimethylolpropane (instant component B), 2.8% N-methyl diethanolamine (instant component C) and 34.3% Isophorone diisocyanate (instant component D). Furthermore, the composition is a dispersion comprising 35% polymer and 75% solvents.
- '507 does not teach the claimed range of component C in the instant application.



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- '438 teaches a polyurethane coating composition comprising (see abstract, claim 1, Example B):
  - (instant A) 2-20% polyTHF (col. 3, lines 10-11),
  - (instant B) 0.5-5% trimethylolpropane (col. 4, line 64),
  - (instant C) 0.5-3% preferably dimethylolpropionic acid (col. 5, line 19) and 0.15-1.5% methyl-diethanolamine (col. 6, line 32) and 0.1-1% polyamines like ethylenediamine (col. 6, line 52),
  - (instant D) 2-20% isocyanate in particular IPDI (col. 5, lines 56-59),
  - and (instant E) father components.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the polyurethane coating composition '507 could be made with the above claimed components in varying percentages overlapping with applicants as shown by '438. One of ordinary skill in the art would know how to optimize the ranges of '507 and '438, as the MPEP 2144.05 states "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." '507 and '438 teach the exact compounds claimed in the instant application and the % weight of components overlap or are near to the amount claimed by applicants such that one of ordinary skill in the art would know how to experiment to obtain workable ranges.


### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bethany Barham whose telephone number is (571)-272-6175. The examiner can normally be reached on Monday to Friday; 8:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bethany Barham  
Art Unit 1615

  
**MICHAEL P. WOODWARD**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1600**